

AMENDMENTS TO THE CLAIMS

Following is a listing of all claims in the present application, which listing supersedes all previously presented claims:

LISTING OF CLAIMS:

1. (Currently Amended) A method for vacuum-mounting at least one microdevice micro-electro mechanical system (MEMS) on a substrate, the method comprising:

attaching a getter to an interior surface of a cavity formed on a cover;
aligning the cavity on the cover and [[a]] the microdevice on the semiconductor substrate in a vacuum chamber;
detecting a degree of vacuum in the vacuum chamber;
adjusting the degree of vacuum in injecting an inert gas into the vacuum
chamber to achieve a predetermined degree of vacuum; and
bonding the cover and the semiconductor substrate, thereby sealing the cavity.

2. (Original) The method as claimed in claim 1, wherein the getter is substantially made of titanium.

3. (Currently Amended) The method as claimed in claim 1, wherein the bonding is performed after a predetermined time has lapsed after adjusting the degree of vacuum the injection of the inert gas.

4. (Currently Amended) The method as claimed in claim [[1]] 17, wherein the inert gas is argon gas.

5. (Currently Amended) The method as claimed in claim [[1]] 17, wherein the adjusting further comprises comprising:

discharging some of the inert gas to adjust the degree of vacuum in the vacuum chamber if an excessive amount of inert gas is injected into the vacuum chamber.

6. (Currently Amended) The method as claimed in claim 1, wherein aligning the cover and the ~~semiconductor~~ substrate in [[a]] the vacuum chamber comprises:

adjusting a supporting means for supporting the cover and the ~~semiconductor~~ substrate in [[a]] the vacuum chamber; and

adjusting a transporting means for transporting the cover and the ~~semiconductor~~ substrate in [[a]] the vacuum chamber.

7. (Currently Amended) The method as claimed in claim 1, wherein [[the]] bonding [[is]] the cover and the substrate comprises anodic bonding.

8. (Currently Amended) The method as claimed in claim 1, wherein bonding the cover and the ~~semiconductor~~ substrate comprises:

heating the cover to a predetermined temperature; and
applying a high voltage to the cover.

9. (Currently Amended) An apparatus for vacuum-mounting at least one microdevice ~~micro-electro-mechanical system (MEMS)~~, the apparatus comprising:

a gas injecting section for injecting an inert gas into a vacuum chamber;
a substrate aligning section for aligning the microdevice on a ~~semiconductor~~ substrate and a cavity formed in a cover, the ~~cover having a cavity housing formed therein and a getter attached to an interior surface of the cavity;~~

a bonding section for bonding the ~~semiconductor~~ substrate and the cover together; and

a controlling section for controlling the substrate aligning section to align the ~~semiconductor~~ substrate and the cover, for adjusting a degree of vacuum in the vacuum chamber to a predetermined degree of vacuum by controlling the gas injecting section to inject the inert gas into the vacuum chamber, and for controlling the bonding section to bond the semiconductor substrate and the cover together after the predetermined degree of vacuum is realized, thereby sealing the cavity inert gas is injected.

10. (Currently Amended) The apparatus as claimed in claim 9, wherein the substrate aligning section comprises:

a supporting means for supporting both the ~~semiconductor~~ substrate and the cover; and

a transporting means for transporting both the ~~semiconductor~~ substrate and the cover.

11. (Original) The apparatus as claimed in claim 9, wherein the bonding section comprises:

a heat supplying part for applying a predetermined amount of heat to the cover; and

a high voltage supplying part for supplying a high voltage to the cover, wherein the controlling section controls the heat supplying part and the high voltage supplying part according to a preset bonding condition.

12. (Currently Amended) The apparatus as claimed in claim 9, wherein the controlling section controls the bonding section to bond the ~~semiconductor~~ substrate and the cover to be bonded together after a predetermined time has lapsed after the inert gas is injected.

13. (Original) The apparatus as claimed in claim 9, wherein the getter is substantially made of titanium.

14. (Original) The apparatus as claimed in claim 9, wherein the inert gas is argon gas.

15. (Currently Amended) The apparatus as claimed in claim 9, further comprising:

a gas discharging section for discharging the inert gas from the vacuum chamber to adjust [[a]] the degree of vacuum in the vacuum chamber.

16. (Original) The apparatus as claimed in claim 9, wherein the cover is a glass plate.

17. (New) The method as claimed in claim 1, wherein adjusting the degree of vacuum further comprises injecting an inert gas into the vacuum chamber.